



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D205-596-107
Job Sheet 193117



Part No: D205-596-107

Job Qty: 1 pcs

Part Name: Aft Crosstube - Extended Height 31"



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 4/9/19

Job Tracking No:

Due Date: 4/30/19

Created By: Linda Lacelle

Type: SOLD

Description:

Note: D205-596-107 REV.C IPP Rev:D 05.03.21 Added bending procedure KJ/JLM IPP Rev:E 08-01-10 ECN 1075
DD IPP Rev F 08.04.28 Added bending & mat'l EC verified by: DD IPP REV:G 13.11.29 as per dwg DEO B-2
DD VERF:JLM IPP REV:H 15.01.28 as per dwg DEO B-3/CHG004 DD VERF:JLM IPP REV:I 18.02.08 AS
PER DWG REV.C DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
105	Crosstubes - 1	1 pcs	4/30/19		0.00	0.00	Crosstubes - 1		D.R 19/04/11
							Crosstubes - 2		
							Crosstubes - 3		
							Crosstubes - 4		
107	QC 7	1 pcs	4/30/19		0.00	0.00	QC 7 - 10		P 19-04-12
							QC 7 - 13		
							QC 7 - 14		
							QC 7 - 15		
							QC 7 - 17		
							QC 7 - 18		
							QC 7 - 19		
							QC 7 - 2		
							QC 7 - 28		
							QC 7 - 3		
							QC 7 - 30		
							QC 7 - 34		
							QC 7 - 36		
							QC 7 - 37		
							QC 7 - 41		
							QC 7 - 47		
							QC 7 - 48		
							QC 7 - 51		
							QC 7 - 58		
							QC 7 - 59		
							QC 7 - 60		
							QC 7 - 9		
							QC 7 - 68		
							QC 7 - 50		
							QC 7 - 67		



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Container No: S171814



Part: D205-596-107

Job No: 193117

Serial No/Batch: S171814

Revision: C

Plex 4/9/19 7:19 AM dart.lacelle.linda

				QC 7 - 40		
110	Crosstubes - Bend - 2 - B4B	1 pcs	4/30/19	0.00 0.00	Crosstubes - Bend - B4B	DD 4/23/2019
130	QC 15	1 pcs	4/30/19	0.00 0.00	QC 15 - 12	
					QC 15 - 3	
					QC 15 - 47	
					QC 15 - 49	
					QC 15 - 58	
					QC 15 - 9	DAS
140	Crosstubes - 2 - B4B	1 pcs	4/30/19	0.00 0.00	Crosstubes - 1 - B4B	APR 23 2019 68
					Crosstubes - 2 - B4B	9-89
					Crosstubes - 3 - B4B	BB 4/24/2019
					Crosstubes - 4 - B4B	
150	Crosstubes - 3 - B4B	1 pcs	4/30/19	0.00 0.00	Crosstubes - 1 - B4B	DD 4/24/2019
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	
160	QC 5	1 pcs	4/30/19	0.00 0.00	QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	DAS
					QC 5 - 68	APR 25 2019 68
					QC 5 - 9	9-89
					QC 5 - 50	
					QC 5 - 30	
					QC 5 - 40	
170	QC 7	1 pcs	4/30/19	0.00 0.00	QC 7 - 10	
					QC 7 - 13	
					QC 7 - 14	
					QC 7 - 15	
					QC 7 - 17	
					QC 7 - 18	
					QC 7 - 19	
					QC 7 - 2	
					QC 7 - 28	
					QC 7 - 3	
					QC 7 - 30	
					QC 7 - 34	
					QC 7 - 36	
					QC 7 - 37	
					QC 7 - 41	AB 19-4-25
					QC 7 - 47	
					QC 7 - 48	
					QC 7 - 51	
					QC 7 - 58	
					QC 7 - 59	
					QC 7 - 60	
					QC 7 - 9	
					QC 7 - 68	
					QC 7 - 50	
					QC 7 - 67	
					QC 7 - 40	

180	Spray Paint - 2 - B4B	1 pcs	4/30/19	0.00 0.00	Spray Paint - 1 - B4B	. A 19-4-26
					Spray Paint - 2 - B4B	
					Spray Paint - 3 - B4B	
					Spray Paint - 4 - B4B	
190	QC 14	1 pcs	4/30/19	0.00 0.00	QC 14 - 15	DAS APR 29 2019 68 9-89
					QC 14 - 2	
					QC 14 - 34	
					QC 14 - 41	
					QC 14 - 51	
					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	
					QC 14 - 68	
					QC 14 - 40	
					QC 14 - 19	
200	Crosstubes - 4 - B4B	1 pcs	4/30/19	0.00 0.00	Crosstubes - 1 - B4B	. RD 19-4-27
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	
210	QC 5	1 pcs	4/30/19	0.00 0.00	QC 5 - 10	DAS APR 30 2019 68 9-89
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	
					QC 5 - 50	
					QC 5 - 30	
					QC 5 - 40	
220	Packaging 3-1 - Stock - B4B	1 pcs	4/30/19	0.00 0.00	Packaging 3 - 1 - B4B	DAS 46 APR 30 2019 9-89
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	

				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
225 DC - 1 - B4B	1 pcs	4/30/19	0.00 0.00	DC - 1 - B4B	
				DC - 2 - B4B	
230 QC 21 - FG	1 pcs	4/30/19	0.00 0.00	QC 21 - FG - 21	APR 30 2019
				QC 21 - FG - 70	
				QC 21 - SA - 53	APR 30 2019

Part Op **105** - (Crosstubes Chemical Conversion) INSIDE AND OUT
 Descriptions: **107** - (QC7-Inspect Chemical Conversion Coat
110 - (CNC Alpha 160 Bender)1- Bend as per Dwg D2890 using CNC bender program D2890 2- Mark cut lines as per dwg D205-596-107
130 - (QC15- Crosstube Dimensional Check)
140 - (Crosstubes)1-Cut as per dimension sheet 2-Deburr & Inspect for surface damage. Polish cut surface.Scribe part # and batch # on one end of tube.
150 - (Crosstubes)***IMMEDIATELY AFTER GRINDING***
160 - (QC5- Inspect part completeness to step on W/O)
170 - (QC7-Inspect Chemical Conversion Coat)
180 - (Spray Paint / NDT Room)1-Prime inside and outside per QSI 005 4.2 Primer 5154137 Paint 5166819
190 - (QC14- Inspect Spray Paint)
200 - (Crosstubes)1- Lightly scuff the bonded area using a 180 grit sand paper and clean the area with 41058 wash 'n' wipe 2- Apply Proseal as per dwg D205-596-107. 3- Install clamps as per dwg (Note 12)Torque clamps 80 to 100 in-lb as per dwg and Note 13) 5146134 ex 19/10 19/4/27 to 19/4/30
210 - (QC5- Inspect part completeness to step on W/O)***PRIOR TO PACKAGING RECHECK TORQUE ON CLAMPS AFTER PROSEAL HAS CURED 72HOURS.***
220 - (Identify as per dwg & Stock Location:)Identify and pack for shipping as per PPP D205-596-107
225 - (Document Control)Photocopy D205-594 bluefile & type labels per PPP D205-596-107 CHG003
230 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6008-180	Crosstube Extrusion	1 pcs (1 ea)	105-Crosstubes - 1	
D2940-1	Support	2 pcs (2 ea)	200-Crosstubes - 4 - B4B	
D3595-063-530	Rubber Cushion 0.63" Wide X 5.30" Long	4 pcs (4 ea)	200-Crosstubes - 4 - B4B	
MS21920-28	Clamp	4 Ea (4 ea)	200-Crosstubes - 4 - B4B	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
105-Crosstubes - 1	D6008-180	1	5	0
200-Crosstubes - 4 - B4B	D2940-1	2 5124991 x1	10	0
	D3595-063-530	4 5156634 x1	54	0
	MS21920-28	4 5151475 x1	45	0

Part Specifications

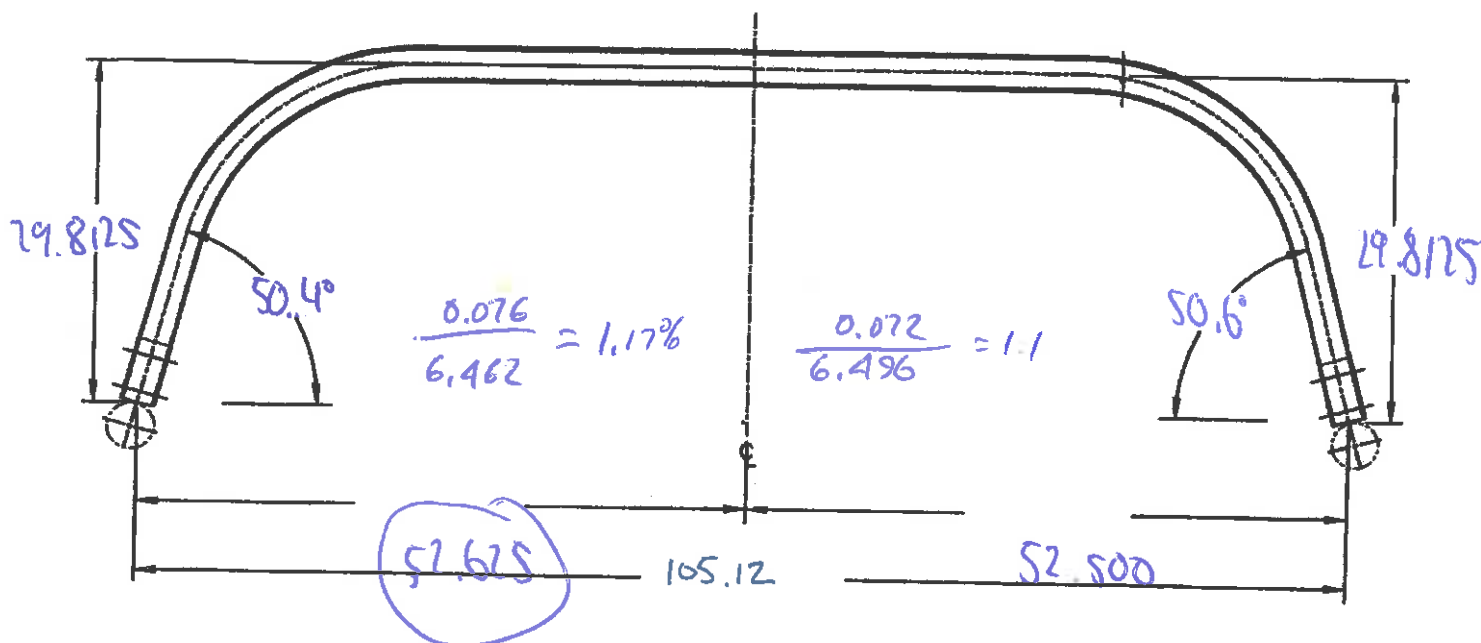
Specifications could not be found.

lle.linda

9499

DART AEROSPACE LTD		Work Order: 193117
Description: Crosstube High-High Aft		Part Number: D205-596-107
Inspection Dwg: D205-596-107	Rev: C	Page 1 of 1

Required Dimension	Min	Max
Height	29.7	29.9
1/2 Span	52.4	52.6
Angle	49	52
Total Span	104.8	105.2
Bending Passes	3	--
Crushing	--	6%



	Side A	Side B
Bending Passes	10	10
Crushing	1.2	1.1
Comments		

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	08.04.21	Dwg Rev updated	KJ/JM	
C	12.04.16	Added bending, crushing dimensions	KJ	
D	18.05.25	Dwg Rev updated	MC	

Entered: 12 Date: Oct 24/19



NCR No. 19-7553

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only ☐

Job: <u>193117</u> Part No. <u>D205-596-107</u>		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒		DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☒ Eng. (Non-AW) ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Water Jet ☐ Large Fab ☐ Finishing ☐ Rec/Store/Packaging ☐ Supplier ☐ Quality ☐																															
Date: <u>19/4/22</u>		Sequence #: <u>130</u>		QTY Affected: <u>1</u>		MRB (QSI042) <u>INSP 12</u> <u>9/15/4/22</u>																													
Description Work Order Deviation				Disposition																															
One width is over tolerance by 0.025, total spec in tolerance				Acceptable																															
								Completed By <u>9/15/4/22</u>																											
								Lead hand / Supervisor <u>TH</u> <u>19-07-17</u>																											
								QC / QA Coordinator <u>DAS</u> <u>68</u> <u>8/8/19</u> APR 25 2019																											
Root Cause Operator ☐ Manufacturing Process ☒ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY <table border="0"> <tr> <td>☐ Pressure/Forced</td> <td>☐ Contamination</td> <td>☐ Power Loss/Surge</td> <td>☐ Positioned Wrong</td> </tr> <tr> <td>☒ Bending</td> <td>☐ Misaligned/off center</td> <td>☐ Folio/Program</td> <td>☒ Outside Tolerance</td> </tr> <tr> <td>☐ Crushing</td> <td>☐ BOM/Route</td> <td>☐ Grain Direction</td> <td>☐ Drawing</td> </tr> <tr> <td>☐ Cracks</td> <td>☐ Broken/Damage/Defect</td> <td>☐ Weld</td> <td>☐ Finish</td> </tr> <tr> <td>☐ Crimp/Kink/Ripple/Wave/Twist</td> <td>☐ Incomplete/Unclear Instructions</td> <td>☐ Wrong Stock Pulled</td> <td>☐ Part Lost/Missing</td> </tr> <tr> <td>☐ Marks/Chatter</td> <td>☐ Drill Holes</td> <td>☐ Out of Sequence</td> <td>☐ Misread</td> </tr> <tr> <td>☐ Mislabeled</td> <td>☐ Fit/Function</td> <td>☐ Off-set/Set-up</td> <td></td> </tr> </table>						☐ Pressure/Forced	☐ Contamination	☐ Power Loss/Surge	☐ Positioned Wrong	☒ Bending	☐ Misaligned/off center	☐ Folio/Program	☒ Outside Tolerance	☐ Crushing	☐ BOM/Route	☐ Grain Direction	☐ Drawing	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Finish	☐ Crimp/Kink/Ripple/Wave/Twist	☐ Incomplete/Unclear Instructions	☐ Wrong Stock Pulled	☐ Part Lost/Missing	☐ Marks/Chatter	☐ Drill Holes	☐ Out of Sequence	☐ Misread	☐ Mislabeled	☐ Fit/Function	☐ Off-set/Set-up	
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